EXPANDABLE MULTIFUNCTION CONTROL PANEL

academy **40**

CE

○ *PROGRAMMING FROM KEYPAD*

BENTEL ®
SECURITY

This Control panel has been developed and manufactured according to the highest standards of quality, reliability and performance adopted by BENTEL SECURITY srl.

Installation of this Control panel must be duly carried out in accordance with the local laws in force.

BENTEL SECURITY srl shall not be responsible for damage arising from improper installation or maintenance by unauthorized personnel.

*Use the **Omnia-Academy40** 3.0 software release or a successive release to program this Control panel.*

Where features and programming procedures apply to Academy40 and Academy40/S the product will be referred to as the Panel.

Where features and programming procedures apply to one of the appliances in particular the product name will be specified.

***Academy40** and **Academy40/S** comply with:*

*Low voltage: **EN 60950/1996 + A4/1997***
*Emission: **EN 50081-1/1992***
*Immunity: **EN 50130-4/1995 + A1/1999***
*Burglar control: **CEI 79/2^a Ed. 1993***
*Terminal Equipment (TE): **TBR 21 — 1/1998***

BENTEL SECURITY srl reserves the right to change the technical specifications of this product without prior notice.

Code 32 (Installer code) allows the installer to program and change the Panel parameters, and:

View buffer   View the event buffer.

Zones status   View zone alarm/bypass status.

Outs management   Operate the **Reserved** outputs manually.

Clear call queue   Clear the outgoing call queue.

Voice functions   Record, play and delete voice messages (these functions require installation of the OmniaVOX kit).

Tel. Numb. progr.   Program the Phonebook.

Descript. progr.   Assign labels to the system devices.

Installer code   Change the Installer code PIN.

User codes   Program the User codes.

Digital keys   Program the digital keys.

Parameter progr.   Access parameter programming.

Revision   View the Panel firmware release.

General rules for the INSTALLER MENU

| 9 ▲ | 0 ▼ | Use these keys to scroll the menu.

| A * ◄ | B # ► | Use these keys to scroll the rows.

| ESC EXC | Use this key to exit the parameter without saving changes. Press this key from the INSTALLER MENU to exit the programming session.

| ON PRG | OFF RES | Use these keys to enable/disable options.

| ENTER | Use this key to confirm programming.

+   **—**   These signs indicate that the corresponding option is enabled (+) or disabled (--).

Identifier numbers   The identifier number will be used instead of the assigned label.

Low-pitched beep   This is the **Request Denied** beep.

+ Access to the INSTALLER MENU requires User authorization. All partitions must be disarmed before starting the parameter programming phase.

Hour   Year Month day

```
ØØ:Ø1  1996/Ø3/Ø5
DDDDDDDD
```

Partition status: D=Disarmed; A=Armed

1	*Enter the Installer code PIN: the default code is **0032**.*	0↓ 0↓ 3■ 2▲	**Input** Code
2	*Press* ENTER.	ENTER	**INSTALL.MENU** ↑↓ **View buffer**
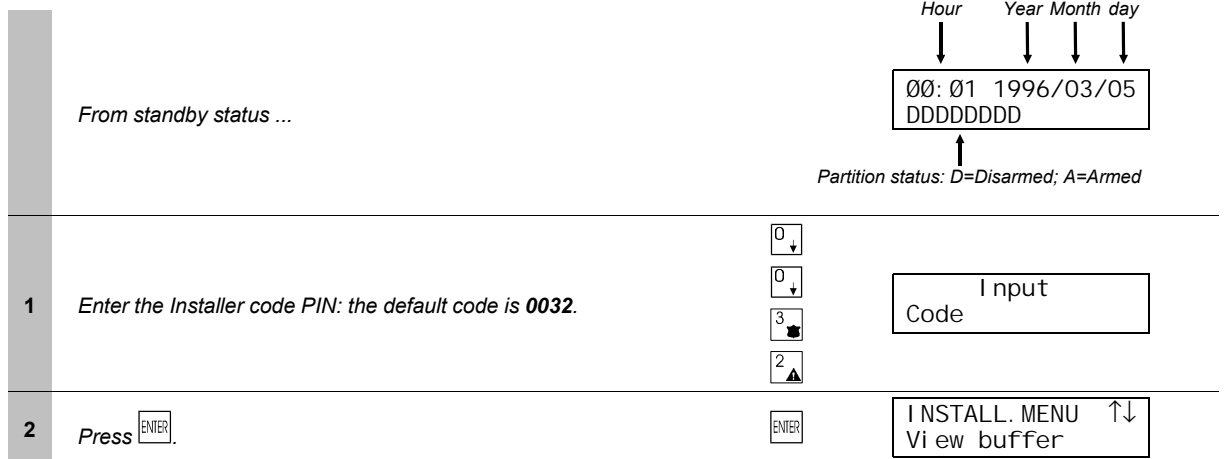
Access to the INSTALLER MENU will:

➢ lock all keypads----other than the one in use (the locked keypads will show the label of the keypad in use)

➢ delete the alarm memory

➢ force all outputs to standby status

➢ stop the event evaluation

➢ stop the ongoing telephone call, and put the call queue on hold

Therefore, the Panel can be considered out-of-service.

EXIT INSTALLER MENU Press ESC/EXC to exit the INSTALLER MENU----the Panel will:

➢ unlock all the keypads

➢ clear the zone-cycle counter

➢ delete alarms for BPI device----tamper----false electronic key

➢ restart calls from the interrupted call----with the exception of the teleservice call

➢ if the Panel is open----the open panel alarm will be disabled until it is closed.

View buffer

Select the View buffer option from the INSTALLER MENU to view the event buffer.

Each event gives a detailed description of the event type; location; time and user, as follows.

➢ Event type

➢ Event identifier number

➢ User

➢ User identifier number

➢ hour-minute-year-month-day

Some events do not have all these parameters.

+ The event buffer can be scrolled back and forward. However, if the forward key is pressed on the last event the buffer will show the first event, and if the back key is pressed on the first event the buffer will show the last event.

|			
	From the installer menu ...		`INSTALL.MENU ↑↓` `View buffer`
1	*Select the View buffer option—use* 9↑ *or* 0↓ *to scroll.*	0↓ : 0↓	`INSTALL.MENU ↑↓` `View buffer`
2	*Press* ENTER.	ENTER	`Ev.198 Type ←→↑↓` `Mains OFF`
3	*Use* 9↑ *or* 0↓ *to scroll the events .*	9↑	`Ev.197 Type ←→↑↓` `Tamper zone open`
4	*Use* A* *or* B# *to scroll the information rows.*	B#	`Ev.197 Zone ←→↑↓` `South entrance`
5		B#	`Ev.197 Inst ←→↑↓` `17:49 05/03/1996`
6	*Press* ESC/EXC *to step back to the INSTALLER MENU.*	ESC/EXC	`INSTALL.MENU ↑↓` `View buffer`

Zones status

Select the Zones status option from the INSTALLER MENU to:

----bypass / unbypass the zones

----view alarm, tamper or bypassed status

Double balanced zones can have **Short**, **Standby**, **Alarm** or **Tamper**.

Balanced zones can have **Short**, **Standby** or **Alarm** status.

NC or **NO** zones can have **Standby** or **Alarm** status only.

+ When a zone changes status the Zones status option may show a sequence of changes before reaching the final status. For example, when a Double Balanced zone changes from Standby to Tamper status, the Zones status option may show Alarm status for several seconds, before changing to Tamper.

View zones

	From the INSTALLER MENU ...		`INSTALL.MENU ↑↓` `View buffer`
1	*Select the **Zones status** option—use* 9↑ *or* 0↓ *to scroll.*	0↓ : 0↓	`INSTALL.MENU ↑↓` `Zones status`
2	*Press* ENTER.	ENTER	`South entrance` `Stdby`
3	*The status of the first zone will be shown. Use* 9↑ *or* 0↓ *to scroll the zones.*	0↓	`Stair window` `Alarm   Active`
4	*Use* OFF/RES *or* ON/PRG *to bypass or unbypass zones.*	OFF/RES	`Stair window` `Alarm   Bypassed`
5	*Press* ESC/EXC *to step back to the INSTALLER MENU.*	ESC/EXC	`INSTALL.MENU ↑↓` `View buffer`

Outs managements

Select the Outs management option.

	From the INSTALLER MENU ...		**INSTALL.MENU** ↑↓ **View buffer**
1	Select the **Outs management** option—use [9↑] or [0↓] to scroll.	[0↓] : [0↓]	**INSTALL.MENU** ↑↓ **Outs management**
2	Press [ENTER].	[ENTER]	**Alarm Siren** **ON-Act.OFF-Stdby**
3	The label of the first Output will be shown. Select the Output—use [9↑] or [0↓] to scroll.	[0↓]	**Fire siren** **ON-Act.OFF-Stdby**
4	Use [ON/PRG] to activate, or [OFF/RES] to force the selected Output to standby status.	[OFF/RES]	**Fire siren** **ON-Act.OFF-Stdby**
5	Press [ESC/EXC] to step back to the INSTALLER MENU.	[ESC/EXC]	**INSTALL.MENU** ↑↓ **View buffer**

Cancel call queue

Select the Cancel call queue option.

	From the INSTALLER MENU ...		**INSTALL.MENU** ↑↓ **View buffer**
1	Select the **Cancel call queue** option—use [9↑] or [0↓] to scroll.	[0↓] : [0↓]	**INSTALL.MENU** ↑↓ **Cancel call queue**
2	Press [ENTER].	[ENTER]	**Cancel call queue** **D O N E!**
3	The call queue will be cleared, and the Panel will step back to the INSTALLER MENU.		**INSTALL.MENU** ↑↓ **View buffer**

Voice functions
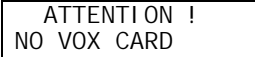
The OmniaVOX kit allows the installer to record, play and delete voice messages.

The Panel can memorize:
---- 2 messages of 5 seconds each
---- 2 messages of 10 seconds each
----10 messages of 4 seconds each
The recorded messages can be:
---- sent by the dialler to the programmed telephone numbers
---- assigned to the Inputs for Input-status checks via telephone
---- assigned to answer-machine function (answer-message)

+ The | **ATTENTION !**
NO VOX CARD | message will be shown----if the above mentioned functions are requested on a Panel that is not equipped with OmniaVOX.

Erase This operation should be done after installation of the OmniaVOX kit, and before recording the messages, as it will **erase all Voice messages** and will initialize the voice board memory.

To delete a specific message---follow the recording procedure, and record an empty message.

Delete all Voice messages

	From the INSTALLER MENU...		**INSTALL.MENU** ↑↓ **View buffer**
1	Select the **Voice functions** option—use [9↑] or [0↓] to scroll.	[0↓] : [0↓]	**INSTALL.MENU** ↑↓ **Voice functions**
2	Press [ENTER].	[ENTER]	**VOICE FUNCT.** ↑↓ **Play Messages**
3	Select the **Erase messages** option—use [9↑] or [0↓] to scroll.	[9↑]	**VOICE FUNCT.** ↑↓ **Erase messages**
4	Press [ENTER] to delete all voice messages, and go back to step no. 2.	[ENTER]	STEP BACK TO no. 2

Recording

	From the INSTALLER MENU ...		`INSTALL.MENU ⇑⇓` `View buffer`
1	Select the **Voice functions** option—use 9↑ or 0↓ to scroll.	0↓ : 0↓	`INSTALL.MENU ⇑⇓` `Voice functions`
2	Press ENTER.	ENTER	`VOICE FUNCT. ⇑⇓` `Play Messages`
3	Select the **Record Messages** option—use 9↑ or 0↓ to scroll.	0↓	`VOICE FUNCT. ⇑⇓` `Record Messages`
4	Press ENTER.	ENTER	`VOICE MESSAGES⇑⇓` `Voice mess. ØØ1`
5	Select the Voice message—use 9↑ or 0↓ to scroll, then press ENTER.	ENTER	`Record` `↵Voice mess. ØØ`
6	Press ENTER to start recording.	ENTER	`Stop record` `↵Sec.avail. Ø1`
7	Speak at a distance of about 20 cm from the microphone. The message timeout will be shown on the display. If the message ends before the timeout elapses, press ENTER to stop the message.	ENTER	STEP BACK TO no. 5

Press ESC/EXC to play or delete the recorded messages as required.

Play

	From the VOICE FUNCTIONS menu ...	-	`VOICE FUNCT. ⇑⇓` `Play Messages`
1	Select the **Play Messages** option—use 9↑ or 0↓ to scroll.	-	`VOICE FUNCT. ⇑⇓` `Play Messages`
2	Press ENTER.	ENTER	`VOICE MESSAGES⇑⇓` `Voice mess. ØØ1`
3	Select the message—use 9↑ or 0↓ to scroll.	-	`VOICE MESSAGES⇑⇓` `Voice mess. ØØ1`
4	Press ENTER.	ENTER	`Play` `↵Voice mess. ØØ`
5	Press ENTER again: the voice board will play the selected message, and the display will show the message time. When the message ends the board will go back to step no. 3.	ENTER	`Stop play` `↵Sec.avail. Ø1`

+ Press ENTER to stop the message.

It is possible to play all the messages. Press ESC/EXC to record or delete messages as required.

Telephone-number Programming

The Telephone-number Programming option allows the installer to program the 32 telephone numbers in the Phonebook.

	From the INSTALLER MENU ...		`INSTALL.MENU ↑↓` `View buffer`
1	*Select the **Tel.Numb.Progr.** option—use* `9↑` *or* `0↓` *to scroll.*	`0↓` : `0↓`	`INSTALL.MENU ↑↓` `Tel.Numb.Progr.`
2	*Press* `ENTER`.	`ENTER`	`TEL. NUMBER ↑↓` `Teleph.numb. 001`
3	*Select the telephone number—use* `9↑` *or* `0↓` *to scroll.* *Press* `ESC EXC` *at this step to exit the telephone number programming phase, and step back to the INSTALLER MENU.*	`0↓` : `0↓`	`TEL. NUMBER ↑↓` `Teleph.numb. 003`
4	*Press* `ENTER`.	`ENTER`	`Teleph.numb. 003` `----------------`

5	*Use* `9↑` *or* `0↓` *to scroll the telephone numbers. Use* `A*←` *or* `B#→` *to move the cursor on the rows. Accepted digits 0 through 9, commas (for pauses of 5 seconds), and A, B, C, *, # for special telephone functions.*	`9↑`
		:
		`B#→`
			`Teleph.numb. 003`
			`02,12345--------`

6	*Press* `ENTER` *to confirm the entered number and go back to step 3.*	`ENTER`	STEP BACK TO no.3

Description Programming (labels)

The **Descript. Progr.** option allows the INSTALLER MENU to change the labels of the Zones, Partitions, Codes, Digital keys etc.

+ Labels can have up to 16 characters.

	From the INSTALLER MENU ...		`INSTALL.MENU ↑↓` `View buffer`
1	*Select the **Descript.Progr.** option—use* `9↑` *or* `0↓` *to scroll.*	`0↓` : `0↓`	`INSTALL.MENU ↑↓` `Descript.Progr.`
2	*Press* `ENTER`.	`ENTER`	`Name order numb.` `00001`

3	*Enter the number of the label. A 5 digit number is required (e.g. 00008). Refer to the chart below for the order number.*
	Press `ESC EXC` *to step back to the INSTALLER MENU.*
		`0↓`
		`0↓`
		`0↓`
		`0↓`
		`8`
			`Name order numb.`
			`00008`

4	*Press* `ENTER`.	`ENTER`	`Zone 008` `Zone 008`

5	*The upper row will show the current label. Enter the new label in the lower row. Use* `9↑` *or* `0↓` *to select the characters and* `A*←` *or* `B#→`*.to move the cursor.*	`9↑`
		:
		`B#→`
			`Zone 008`
			`Bedroom sensor`

6	*Press* `ENTER` *to confirm the label and go back to step 3.*	`ENTER`	STEP BACK TO no. 3

Order numb.	Object	Order numb.	Object
1..40	Zones (40)	139..170	Codes (32)
81..88	Partitions (8)	171..426	Digital keys (256)*
89..104	Key reader (16)	427..436	Super keys (10)
105..112	Keypads (8)	437..468	Telephone numbers in the Phonebook (32)
113..118	Input expanders (6)		
129..136	Output expanders (8)	469..504	Outputs (36)
137..138	Power stations (2)	505..518	Voice messages (14)

* 250 keys can be programmed----programming of keys 251 to 256 will be ignored.

Installer code

The Installer code **PIN** (**P**ersonal **I**dentification **N**umber) can have 4, 5 or 6-digits.

Default The factory default code is **0032**.

New PIN

0	*From the INSTALLER MENU ...*		`INSTALL.MENU  ↑↓` `View buffer`
1	*Select the **Installer code** option—use* [9↑] *or* [0↓] *to scroll.*	[0↓] : [0↓]	`INSTALL.MENU  ↑↓` `Installer code`
2	*Press* [ENTER].	[ENTER]	`Code         Ø32` `Code      XXXXXX`
3	*Enter the New PIN (accepted digits 0 through 9). If less than 4 digits are entered, the keypad will beep and step back to the INSTALLER MENU.*	[6] [6] [7] [0↓]	`Code         Ø32` `Code      ****XX`
4	*Press* [ENTER].	[ENTER]	STEP BACK TO no. 0

User codes

The Installer code can program:

➢ the codes that will be **Available** to the users

➢ the **enabled partitions** of each User code

➢ the **arming mode** for keys [A*] and [B#]

➢ the **user-menu** options, as per below.

   1 *Arm / Disarm partitions*
   2 *Stop and reset Panel alarm*
   3 *Stop and reset partition alarm*
   4 *Bypass zones*
   5 *View Event buffer*
   6 *Enable / Disable the answering-machine and teleservice*
   7 *Cancel call queue*
   8 *Manage Outputs*

➢ The **instant actions**, as per below.

   1 *Type A arming*
   2 *Type B arming*
   3 *Global arming of the partitions for an enabled User code*
   4 *Global disarming of the partitions for an enabled User code*
   6 ** Panel management via telephone*
   7 ** Input reading via telephone*
   8 ** Voice function via telephone*

   * These options can be programmed for User codes no. 25 through no. 31 **only**. User codes no. 25 through no. 31 **cannot be Master codes.**

➢ A **Master code** can change the PIN and status (*Active/*not *Active*) of each of its codes.

   + The installer cannot change the **Available** status (not *Available*) of an **Active** User code.

Refer to **Keypad codes** in the **PROGRAMMING** section for full details.

Procedure Installer parameter programming is as per below (refer also to the USER MANUAL).

	From the INSTALLER MENU ...		`INSTALL.MENU ↑↓` `View buffer`

1	Select the **User codes** option—use `9↑` or `0↓` to scroll.	`0↓`
		`:`
		`0↓`
			`INSTALL.MENU ↑↓`
			`User codes`

2	Press `ENTER`.	`ENTER`	`Code       001` `Available   ↑↓`
3	Use `9↑` or `0↓` to scroll the Code list.	`0↓`	`Code       002` `Not available ↑↓`
4	Press `ON PRG` to make the selected Code **Available** or press `OFF RES` to make the selected Code **Not available**. ✛ If the selected Code is **Active** it cannot be made **Not Available**, therefore, a beep will signal request denied.	`ON PRG`	`Code       002` `Available   ↑↓`
5	Press `ENTER`. The lower row will show the **Enabled Partitions (Areas enabled)**: – means **disabled** on the corresponding partition; + **means enabled** on the corresponding partition.	`ENTER`	`Areas enabled` `++++++++`

6	Select the partition—use `A*←` or `B#→`—then press `ON PRG` or `OFF RES` to enable / disable the Code on the corresponding partition.	`OFF RES`
		`B#→`
		`OFF RES`
			`Areas enabled`
			`--++++++`

7	Press `ENTER` to view the partitions that will arm (+) and disarm (–) when the Code is entered and `A*←` is pressed.
	✛ This arming mode will be valid only on the partitions operated by the Code in question (see steps 5 and 6).
		`ENTER`
		`B#→`
		`B#→`
		`B#→`
		`OFF RES`
			`Arming type A`
			`+++-++++`

8	Press `ENTER` to view the partitions that will arm (+) and disarm (–) when the Code is entered and `B#→` is pressed.	`ENTER`
		`B#→`
		`B#→`
		`ON PRG`
			`Arming type B`
			`--+-----`

9	Press `ENTER` to view the User menu options (**Menu item enabl.**) that can (+) or cannot (–) be operated by the Code in question (indicated by the – and + signs on the lower row).	`ENTER`
		`B#→`
		`OFF RES`
			`Menu item enabl.`
			`+-++++++`
			
			Output management
			Clear call queue
			Teleservice
			View
			View / Bypass zones
			Partitions reset
			Panel reset
			Arm / Disarm

10	Press `ENTER` to view the actions that can (+) or cannot (–) be performed by the Code in question.	`ENTER`
		`OFF RES`
		`B#→`
		`OFF RES`
			`Other act. enab.`
			`--+++---`
			
			Remote listen-in
			Telephone functions
			Inputs status via DTMF
			Enable / Disable via DTMF
			Disarm enabled partitions
			Arm enabled partitions
			Arming type B
			Arming type A

11	Press `ENTER`—then enter the identifier number of the **Master code**. The Master code can change the PIN and status (**Active**/not **Active**) of the Code.
	✛ Only Codes no. 1 to no. 24 can be **Master Codes**.
		`ENTER`
		`0↓`
		`0↓`
		`0↓`
		`0↓`
		`2▲`
			`Master code`
			`00002`

12	Press `ENTER`.	`ENTER`	STEP BACK TO no. 3

Digital keys can be used on the Key readers. They allow trouble-free control of the main features, such as:

➢ Global arming / disarming of partitions

➢ Partial arming / disarming of partitions

➢ Stop partition alarms

False key The Panel will generate a 32-binary digit (bit) random code (from over 4 billion possible combinations). The code must be copied on the memory of all the digital keys. The key code must **match** the code in the Panel memory---**mismatch** will generate a **False key on key-reader** event.

+ A disabled key will be considered **False**----even though it has a valid code.

Multiple systems As well as being able to generate a code, this Panel can also learn a code (refer to **Code reading**) from a digital key----programmed by another Panel (Academy40, Academy40/S, Omnia and Omnia/S). This will allow the same digital key to operate several systems (house, office, factory, etc.).

+ The code a Panel learns from the digital key will replace the previous code in the Panel memory, therefore, it must be copied on all the digital keys used on the system (refer to **Enable**). This is not usually a long operation, that is, if the code of a large installation (e.g. Factory) with many digital key users is copied on a smaller installation (e.g. House) with a relatively small number of digital key users, and not vice versa.

ID number As well as the code----the digital key memory also holds the **Identifier number** (1 through 250). This number will allow the Panel to identify the key when it operates the system. The Panel can manage up to **250 different digital keys**. However, digital key 250 can be have an unlimited number of clones.

The digital key label (assigned during the programming phase) will be used----instead of its **ID** number----when it operates the system.

+ Multisystem keys should have the same label on all the systems they operate.

Enable on The digital keys must be enabled on the Panel partitions. Enabled digital keys can operate **Global or Partial arm-**
partitions **ing / disarming** and **Stop partition alarms**. The digital key partitions will be memorized by the Panel. **Multi-sys-tem** digital keys can be enabled on the partitions of each of the systems they operate.

+ The partitions a digital key can operate depend on the Key reader partitions. For example, if the key is enabled on partitions no. 1 and no. 2, and the Key reader is enabled on partition no. 1, the key will be able to operate partition no. 1 only.

Create code

	From the INSTALLER MENU ...		`INSTALL.MENU ↑↓` `View buffer`
1	*Select the **Electronic keys** option—use* `9↑` *or* `0↓` *to scroll.*	`0↓` ⋮ `0↓`	`INSTALL.MENU ↑↓` `Electronic keys`
2	*Press* `ENTER`.	`ENTER`	`ELECTRONIC KEY↑↓` `Program`
3	*Select the **New random code** option—use* `9↑` *or* `0↓` *to scroll.*	`0↓` `0↓`	`ELECTRONIC KEY↑↓` `New random code`
4	*Press* `ENTER`.	`ENTER`	STEP BACK TO no. 3

+ The digital keys of a Panel that generates a *New random code* will automatically be disabled (false) on the Panel in question. However, they will not be disabled on other Panels that have learnt their code (refer to **Code reading**).

	From the INSTALLER MENU ...		`INSTALL.MENU  ↑↓` `View buffer`

1	*Select the Electronic keys option—use* `9↑` *or* `0↓` *to scroll.*	`0↓`
		`:`
		`0↓`
			`INSTALL.MENU  ↑↓`
			`Electronic keys`

2	*Press* `ENTER`*.*	`ENTER`	`ELECTRONIC KEY↑↓` `Program`
3	*Press* `ENTER` *again. Select the digital key (Electr key)—use* `9↑` *or* `0↓` *to scroll.*	`ENTER` `0↓`	`PROGRAMMING    ↑↓` `Electr Key   002`
4	*Press* `ENTER` *to view the partitions the digital key can (+) and cannot (–)* *operate.*	`ENTER`	`Areas enabled` `++++++++`

5	*Use* `A*←` *or* `B#→` *to scroll. Use* `ON PRG` *to enable or* `OFF RES` *to disable the*
	digital keys on the corresponding partition.
		`B#→`
		`B#→`
		`B#→`
		`OFF RES`
		`B#→`
		`OFF RES`
			`Areas enabled`
			`+++--+++`

6	*Press* `ENTER` *then enter the identifier number of the Key reader.*	`ENTER`
		`0↓`
		`0↓`
		`0↓`
		`0↓`
		`2▲`
			`Use Key reader`
			`00002`

7	*Press* `ENTER`*. The display will show the digital key number (Electr key).* *Insert the digital key into the Key reader—shown on the display. The* *three LEDs on the Key reader will glow to indicate Programming OK,* *or will Flash to indicate Programming error.*	`ENTER`	`Electr key    002` `Key reader    002`

Repeat step no. 7 to enable other digital keys on the partitions specified in step no. 5.
The upper row will show the digital key, and the lower row will show the Key reader to use.

Press `ESC EXC` to step back to the step no. 3.

+ To change the enabled partitions of a digital key----follow the Programming procedure to step no. 5 then press `ESC EXC`.

Code reading The following procedure will copy the digital key code onto the memory of an Academy40 or Omnia Panel (Academy40, Academy40/S, Omnia and Omnia/S).

	From the INSTALLER MENU ...		`INSTALL.MENU  ↑↓` `View buffer`
1	*Select the **Electronic keys** option—use* ⬆9 *or* ⬇0 *to scroll.*	⬇0 **:** ⬇0	`INSTALL.MENU   ↑↓` `Electronic keys`
2	*Press* ENTER*.*	ENTER	`ELECTRONIC KEY↑↓` `Program`
3	*Select the **Read code** option—use* ⬆9 *or* ⬇0 *to scroll.*	⬆9	`ELECTRONIC KEY↑↓` `Read code`
4	*Press* ENTER *then enter the identifier number of the Key reader to be used for the Digital-key code transfer.*	ENTER ⬇0 ⬇0 ⬇0 ⬇0 ⬆2	`Use Key reader` `00002`
5	*Press* ENTER *then put the Digital Key in the Key reader shown on the display.*	ENTER	STEP BACK TO no. 3

The code a Panel learns from the digital key will replace the previous code in the Panel memory, therefore, it must be copied on all the digital keys used on the system, as per the following paragraph.

■ Enable
The digital keys can be enabled / disabled individually. Therefore, a lost key can simply be disabled----it will not be necessary to generate a new code, or reprogram all the other digital keys. The Panel will generate a **False key on key reader** event if a disabled digital key is used at a Key reader, even though its code is still valid.

Procedure Enable or disable digital keys, as per below.

	From the INSTALLER MENU...		`INSTALL.MENU   ↑↓` `View buffer`
1	*Select the **Electronic keys** option—use* ⬆9 *or* ⬇0 *to scroll.*	⬇0 **:** ⬇0	`INSTALL.MENU   ↑↓` `Electronic keys`
2	*Press* ENTER*.*	ENTER	`ELECTRONIC KEY↑↓` `Program`
3	*Select **Enable**—use* ⬆9 *or* ⬇0 *to scroll.*	⬇0	`ELECTRONIC KEY↑↓` `Enable`
4	*Press* ENTER*.*	ENTER	`Electr key   001` `Disabled`
5	*Select the key—use* ⬆9 *or* ⬇0 *to scroll, then press* OFF/RES *to disable or* ON/PRG *to enable the selected key.*	⬇0 ON/PRG	`Electr key   002` `Enabled`
6	*Repeat the procedure from step no. 5 for each key. Press* ESC/EXC *to step back to the **ELECTRONIC KEYS** menu.*	ESC/EXC	STEP BACK TO no. 3

+ A digital key can be enabled / disabled by the Installer only----without authorization from the key user, and need not be in the key reader during the enable / disable operation.

Parameter programming

The INSTALLER MENU allows the installer to program all the Panel parameters (refer to **PROGRAMMING**).

Parameter programming, due to its complexity, is dealt with separately in the **PARAMETER PROGRAMMING** section.

Firmware release

This option will allow the installer to view the Panel firmware release.

	From the INSTALLER MENU ...		`INSTALL.MENU ↑↓` `View buffer`
1	*Select the **Revision** option—use* 9↑ *or* 0↓ *to scroll.*	0↓ : 0↓	`INSTALL.MENU ↑↓` `Revision`
2	*Press* ENTER*.*	ENTER	`BENTEL-ACADEMY` `Rev. 3.Ø1`
3	*Press any key to step back to the INSTALLER MENU.*	ESC EXC	`INSTALL.MENU ↑↓` `View buffer`

Please read the following instructions carefully, as proper functioning of the Panel depends on the Parameters programmed during this phase. Refer to the **PROGRAMMING** section in the **INSTALLATION MANUAL** for further details.

	From the INSTALLER MENU ...	`INSTALL.MENU ↑↓` `View buffer`
1	*Select **Parameter progr.**—use* 9↑ *or* 0↓ *to scroll.*	0↓ : 0↓
2	*Press* ENTER.	ENTER

General rules for programming from Keypad

There are 81 **Data Blocks**----each **Block** represents the parameters of a specific function.

Start the programming phase----the display will show:

Parameter number
ØØØØ1

The Panel will request a parameter or **Block** of parameters.

● Enter the **Block** number (e.g. 00025) the display will show:

Ø25 ØØØØ5 ØØØØ1
ØØØØØ

From left to right, the upper row of this display will show:

➢ the **Block** number (0**25**)

➢ the number of options in the selected **Block** (0000**5**)

➢ the option number (0000**1**).

The Value must be entered on the lower row.

Flags8
Flags16 Each parameter has a series of either 8 or 16 Flags. A flag is either a **+** or **–** sign.

+ means----**Yes**, **Present**, **Active**, **Available**

– means----**No**, **Not Present**, **Not Active**, **Not Available**

For example parameter 2 (Key readers in configuration) is a **Flags8** type, as follows:

ØØ2 ØØØØ1 ØØØØ1
+------- = 8 flags

Use key A* or B# to move along the **Flag** row (the flag will flash to show the position of the cursor). Press ON/PRG to enter **+** or OFF/RES to enter **–**.

Press ENTER to save the parameter and step to the next parameter (if present), or step back to the Select **Block** phase.

Number A **Number** parameter is a 5 digit value. For example, parameter 11 (Zone Cycles), as follows:

Ø11 ØØØ8Ø ØØØØ1
ØØ255

The accepted value varies for each parameter.

Number parameters require 5 digits. Press ENTER to save, and step to the next parameter (if present).

Logic A **Logic** parameter has a value of **0** or **1**. For example, parameter 30 (Jump other answering devices), as follows:

Ø30 ØØØØ1 ØØØØ1
        ØØØØØ

This type of parameter applies to Yes / No options.
Accepted values are 00000 or 00001, and mean:

00000 = No, Not Active
00001 = Yes, Active

+ Other values (00002 through 59999) will be rectified to 00001.

Logic parameters require 5 digits. Press ENTER to save and exit.

Key readers in Configuration

Block no.	00001
Length	00001
Type	Fl ags16

The flag spaces on the bottom row correspond to Addresses **1** through **16** (from left to right).

To assign a key reader to an address:

Enter **+** (press ON PRG) in the flag spaces of the address----press OFF RES (**–**) to deselect.

Example

001 ØØØØ1   ØØØØ1
++-+------------

The Key readers are assigned to addresses **1**, **2** and **4**.

Keypads in Configuration

Block no.	00002
Length	00001
Type	Fl ags8

The flag spaces on the bottom row correspond to Addresses **1** through **8** (from left to right).

To assign a keypad to an address:

Enter **+** (press ON PRG) in the flag spaces of the address----press OFF RES (**–**) to deselect.

Example

002 ØØØØ1   ØØØØ1
++------

The Keypads are assigned to addresses **1** and **2**.

Input expanders in Configuration

Block no.	00003
Length	00001
Type	Fl ags16

The flag spaces on the bottom row correspond to Addresses **1** through **16** (from left to right).

To assign an Input expander to an address:

Enter **+** (press ON PRG) in the flag spaces of the address----press OFF RES (**–**) to deselect.

Example

003 ØØØØ1   ØØØØ1
+++++-----------

The Input expanders are assigned to addresses **1**, **2**, **3**, **4**, and **5**.

Output expanders

Block no.	00004
Length	00001
Type	Flags8

The flag spaces on the bottom row correspond to Addresses **1** through **8** (from left to right).

To assign an Output expander to an address:

Enter **+** (press [ON/PRG]) in the flag spaces of the address----press [OFF/RES] (**–**) to deselect.

Example

004 00001 00001 +-----+-	The Output expanders are assigned to addresses 1 and 7.

Power stations

Block no.	00005
Length	00001
Type	Flags8

The flag spaces on the bottom row correspond to Addresses **1** through **8** (from left to right).

To assign a Power station to an address:

Enter **+** (press [ON/PRG]) in the flag spaces of the address----press [OFF/RES] (**–**) to deselect.

+ Only Addresses 1 and 2 are available for Power stations.

Example

005 00001 00001 +-------	A **Power station** is assigned to address 1.

Enable Keypad Partitions

Block no.	00006
Length	00008
Type	Flags8

Enable the Keypads on the various Partitions.

+ The Panel will ignore any Keypad that is not in the configuration (assigned to an address).

Example

006 00008 00002 -+++++++	the Keypad----assigned to address 2----is enabled on **all** Partitions **except** Partition no. 1.

Enable Key reader Partitions and Masks

Block no.	00007
Length	00048
Type	Flags8

Key readers must be:

➢ **enabled** on Partitions

➢ assigned to an arming type----associated with the **Amber** LED

➢ assigned to an arming type associated with the **Green** LED

Up to 16 **Blocks** (for up to 16 key readers) of 3 options can be programmed.

+ The Panel will ignore any Key reader that is not in the configuration (assigned to an address).

Example

007 00048 00001 ++++++++	The Key reader at address 1 is *enabled* on all Partitions.
007 00048 00002 +++-----	The type of arming associated with the *Amber* LED will arm Partitions no. 1, 2 and 3 and disarm all other Partitions.
007 00048 00003 --+++---	The type of arming associated with the *Green* LED will arm Partitions no. 3, 4 and 5 and disarm all others.

Block no.	00008
Length	00080
Type	Fl ags8

Program the **Balancing** and **Sensitivity** for each Zone.

For **Standard Sensitivity**----program as follows:

1	2	3	4	5	6	7	8
Within			Pulses		–	Balancing	

For **Low Sensitivity**----program as follows:

1	2	3	4	5	6	7	8
Pulse length					+	Balancing	

The **Within**, **Pulses** and **Balancing** parameters are codified as follows:

7	8	BALANCING
–	–	Normally open
+	–	Double balanced
–	+	Balanced
+	+	Normally closed

4	5	PULSES
–	–	1 pulse
+	–	1 pulse
–	+	2 pulses
+	+	3 pulses

1	2	3	WITHIN
–	–	–	4 seconds
+	–	–	8 seconds
–	+	–	12 seconds
+	+	–	16 seconds
–	–	+	20 seconds
+	–	+	24 seconds
–	+	+	28 seconds
+	+	+	32 seconds

Pulse length The flag spaces in the **Pulse length** parameter have binary values, as follows:

----first flag space = **1** ----second flag space = **2** ----third flag space = **4** ----fourth flag space = **8** ----fifth flag space = **16**

How to calculate the Pulse length

● Choose the Pulse length in steps of 30 seconds (30 through 960 as per requirements).

● Divide the **Pulse length** value by 30 then take away **1** from the result (refer to the ***Examples*** and table below).

● Enter **+** (press [ON PRG]) in the flag spaces that sum the resultant number.

+ Press [OFF RES] (**–**) to zero a value or to deselect.

Examples

Pulse length = **30** seconds ÷ **30 = 1 – 1 = 0** therefore, enter "**–**" in **all 5** flag spaces, see table.

Pulse length = **60** seconds ÷ **30 = 2 – 1 = 1** therefore, enter "**+**" in the **first** flag space see table.

Pulse length = **330** seconds ÷ **30 = 11 – 1 = 1 0** therefore, enter "**+**" in the **second** and **fourth** flag spaces, see table.

The numbers (1 through 5) on the top row of the table below indicate the flag spaces and not the binary values.

1	2	3	4	5	PULSE LENGTH
–	–	–	–	–	30 seconds
+	–	–	–	–	60 seconds
		:		:	:
–	+	–	+	–	330 seconds
		:		:	:
+	+	+	+	+	960 seconds

Example

008 00080 00003
---+--+-

Zone no. 3 is programmed as:
Standard Sensitivity, *Single Pulse*, *Double balanced*.

Zone Type

Block no.	**00009**
Length	**00080**
Type	**Flags8**

Select the **Type** for each Zone.

The selected **Type**----*Alarm* or *Command*----will determine the operating mode of the Zone.

- For **Alarm** Zones----enter **–** (press OFF/RES) in position 8, and enter **+** (press ON/PRG) in the flag space of the required operating mode.

1	2	3	4	5	6	7	8
Entry delay	Entry path	Exit delay	Last exit zone	24h	Fire		–

Please note the following programming restrictions:

➢ If **Fire** is selected----no other operating mode can be selected.

➢ If **24h** is selected----no other operating mode can be selected.

➢ If the Zone is neither **24h** nor **Fire**----more than one of the 4 remaining Types can be selected.

+ The Zone will be considered **Instant**----if no **+** signs are present.

- For Command Zones----enter **–** (press OFF/RES) in position 8, and enter **+** (press ON/PRG) in the flag space of the required command.

1	2	3	4	5	6	7	8
Arm Disarm	Only arm	Only disarm	Partition reset	Panel reset	Clear calls		+

+ If more than one **+** sign is entered (to select the command)----only the first to the right will be considered.

Example

009 00080 00002
+-+-----

Zone no. 2 is programmed as:
Alarm Zone, *Entry delay*, *Exit delay*.

Zone Attributes

Block no.	**00010**
Length	**00080**
Type	**Flags8**

Assign the **Attributes** to each Zone.

- Enter **+** (press ON/PRG) in the flag spaces of the required **Attributes**, as per the following table:

1	2	3	4	5	6	7	8
Not Bypassable	Chime	Test	Autobypassable				

+ These **Attributes** do not apply to **Command** Zones.

Example

010 00080 00001

Zone no. 1 has **no** Attributes.

Zone Alarm Cycles

Block no.	00011
Length	00080
Type	Number
Validity	0..255

Program the number of times a Zone can signal alarm before being bypassed.

Enter **255** for **Repetitive** Zones.

Note   This Panel manages a maximum of 40 zones, therefore, parameters no. 41 through no. 80 are irrelevant.

Example

Ø11 ØØØ8Ø   ØØØØ1
ØØØØ5

Zone no. 1 can generate 5 cycles (maximum).

Zone Partitions

Block no.	00012
Length	00080
Type	Flags8

Assign the Zones to the Partitions.

1	2	3	4	5	6	7	8	ASSIGN.	1	2	3	4	5	6	7	8	ASSIGN.
–	–	–	–	–	–	–	–	Partition no. 1	–	–	+	–	–	–	–	–	Partition no. 5
+	–	–	–	–	–	–	–	Partition no. 2	+	–	+	–	–	–	–	–	Partition no. 6
–	+	–	–	–	–	–	–	Partition no. 3	–	+	+	–	–	–	–	–	Partition no. 7
+	+	–	–	–	–	–	–	Partition no. 4	+	+	+	–	–	–	–	–	Partition no. 8

● For **Command** Zones----enter **+** (press 🔲) in the flag spaces of the Partitions that must obey the command.

Note   This Panel manages a maximum of 40 zones, therefore, parameters no. 41 through no. 80 are irrelevant.

Example

Ø12 ØØØ8Ø   ØØØØ5
++-------

Zone no. 5 is assigned to Partition no. 4.

Zone status Voice messages

Block no.	00013
Length	00160
Type	Number
Validity	0..14

Enter 2 values----for each Zone----as follows.

● **Value 1:** enter the **Identifier no.** of the **Voice message** for Standby status.

Enter **0** for **no message**.

● **Value 2**: enter the **Identifier no.** of the **Voice message** for **Alarm** status.

Enter **0** for **no message**.

Note   This Panel manages a maximum of 40 zones, therefore, parameters no. 82 through no. 160 are irrelevant.

Example

Ø13 ØØ16Ø   ØØØØ1
ØØØØ3

Ø13 ØØ16Ø   ØØØØ2
ØØØØ4

Zone no. 1 has Voice message no. 3----for **Standby** status, and Voice message no. 4----for **Alarm** status.

Off time

Block no.	00014
Length	00001
Type	Number
Validity	0..255

Program the **Off time** (pause) between alarm cycles----generated by Monostable Outputs, as follows.

Off time----0 through 127.5 seconds in steps of 0.5 seconds.

● Enter the **Off time** (as per requirements) **multiplied by 2**.

Therefore, if the **Off time** is 5 seconds----enter 10.

Accepted values: 0 through 256.

Example

Ø14 ØØØØ1 ØØØØ1
ØØØ1Ø

The programmed **Off time** is 5 seconds.

Output Type

Block no.	00015
Length	00036
Type	Logic

Program the **Bistable** or **Monostable** operating mode of the Output:

● Enter **1** for **Monostable**

Enter **0** for **Bistable**

Example

Ø15 ØØØ36 ØØØØ2
ØØØØ1

Output no. 2 is programmed as Monostable.

Reserved (for manual commands)

Block no.	00016
Length	00036
Type	Logic

The Outputs can be **Reserved** for manual commands.

● Enter **1** for **Reserved** status.

Enter **0** to allow the Output to be activated by events.

Example

Ø16 ØØØ36 ØØØØ4
ØØØØ1

Output no. 4 is *Reserved* for manual commands.

How to program Main Unit Outputs (Block no. 17)

Block no.	00017
Length	00005
Type	Number

Enter 5 values for each of the four Main Unit Outputs.

● **Value 1:** enter the accumulative significance of the Attributes of the four Outputs----Normally open or **Normally closed** (refer to **Attributes**).

● **Value 2**: enter the **On time** value for Output no. 1 (refer to **On time**).

● **Value 3:** enter the **On time** value for Output no. 2.

● **Value 4:** enter the **On time** value for Output no. 3.

● **Value 5:** enter the **On time** value for Output no. 4.

Attributes Calculate the accumulative significance for **Value 1** as follows.

The significance of a **Normally Open** Output is **0**, therefore:
Enter **0** to program **all four** Outputs as **Normally open**.

The significance of a **Normally Closed** Output depends on the Output, as follows:
Output no. 1 = significance **1**
Output no. 2 = significance **2**
Output no. 3 = significance **4**
Output no. 4 = significance **8**

Example Output 1 Normally Open (Significance 0)
Output 2 Normally Open (Significance 0)
Output 3 Normally Closed (Significance **4**)
Output 4 Normally Closed (Significance **8**), therefore, enter **12**.

On time Calculate the **On time** value for the Outputs as follows:

➢ **Short On time**----0 through 25.4 seconds in steps of 0.2 seconds.

● Enter the **On time** (as per requirements) **multiplied by 5**.

Therefore, if the **On time** is 10 seconds----enter **50** (10 * 5 = **50**).

Accepted values: 0 through 127 .

➢ **Long On time**----0 through 128 minutes in steps of 1 minute.

● Enter the **On time** (as per requirements) **plus 127**.

Therefore, if the **On time** value is 10 minutes----enter **137** (10 + 127 = **137**).

Accepted values: 128 through 255

+ **The On time** can be programmed for **Monostable** Outputs only.

Example

Ø17	ØØØØ5	ØØØØ1 ØØØØ3	Outputs no. 1 and 2 are programmed as *Normally closed* and Outputs no. 3 and 4 as *Normally open*.
Ø17	ØØØØ5	ØØØØ2 ØØ13Ø	3 minutes **On time** for Output no. 1
Ø17	ØØØØ5	ØØØØ3 ØØ13Ø	3 minutes **On time** for Output no. 2
Ø17	ØØØØ5	ØØØØ4 ØØØ25	5 seconds **On time** for Output no. 3
Ø17	ØØØØ5	ØØØØ5 ØØØ25	5 seconds **On time** for Output no. 4

How to program Expander no. 1 Outputs

Block no.	00018
Length	00005
Type	Number

Program the 4 Outputs as per **Block no. 17**.

How to program Expander no. 2 Outputs

Block no.	00019
Length	00005
Type	Number

Program the 4 Outputs as per **Block no. 17**.

How to program Expander no. 3 Outputs

Block no.	00020
Length	00005
Type	Number

Program the 4 Outputs as per **Block no. 17**.

How to program Expander no. 4 Outputs

Block no.	00021
Length	00005
Type	Number

Program the 4 Outputs as per **Block no. 17**.

How to program Expander no. 5 Outputs

Block no.	00022
Length	00005
Type	Number

Program the 4 Outputs as per **Block no. 17**.

How to program Expander no. 6 Outputs

Block no.	00023
Length	00005
Type	Number

Program the 4 Outputs as per **Block no. 17**.

How to program Expander no. 7 Outputs

Block no.	00024
Length	00005
Type	Number

Program the 4 Outputs as per **Block no. 17**.

How to program Expander no. 8 Outputs

Block no.	00025
Length	00005
Type	Number

Program the 4 Outputs as per **Block no. 17**.

Partition Entry time

Block no.	00026
Length	00008
Type	Number

● Enter the **Entry time** value of each of the 8 Partitions, as follows.

Entry time----up to 60 minutes (as per requirements).

How to calculate the Entry time value:

----divide the **Entry time** (in seconds) by **1.2**.

Example

```
026  00008   00001
             00025
```
Partition no. 1 is has a 30 second *Entry time* (30 ÷ 1.2 = 25).

Exit time

Block no.	00027
Length	00008
Type	Number

● Enter the **Exit time** value for each of the 8 Partitions, as follows:

➢ **Exit time**----up to 60 minutes (as per requirements).

How to calculate the Exit time value:

----divide the **Exit time** (in seconds) by **1.2**.

Example

```
027  00008   00003
             00050
```
Partition no. 3 is has a 60 second *Exit time* (60 ÷ 1.2 = 50).

Last exit time

Block no.	00028
Length	00008
Type	Number

- Enter the **Last Exit time** value for each of the 8 Partitions, as follows:
- ➢ **Last exit time**----up to 60 minutes (as per requirements).

    How to calculate the Last Exit time value:

    ----divide the **Last Exit time** (in seconds) by **1.2**.

Example

```
028  00008   00002
             00005
```
Partition no. 2 is has a 6 second *Last Exit time* (6 ÷ 1.2 = 5).

Primary and Subordinate Partitions (Depends on)

Block no.	00029
Length	00008
Type	Flags8

Create a Primary and Subordinate Partition structure. The Subordinate Partitions *Depend on* their Primary Partitions.

- Enter **+** (press $\boxed{\text{ON/PRG}}$) in the flag spaces of the Partitions that will have Primary status.

Example

```
029  00008   00001
--------

029  00008   00002
--------

029  00008   00003
++------
```
Partitions no. 1 and no. 2 do not *Depend on* other Partitions. However, Partition no. 3 *Depends on* Partitions no. 1 and no. 2.

Jump other answering devices

Block no.	00030
Length	00001
Type	Logic

If this option is enabled the Panel will override other answering devices on the same telephone line.

- Enter **1**----to enable the option

    Enter **0**----to disable the option

Example

```
030  00001   00001
             00001
```
The *Jump other answering devices* option is enabled.

Rings

Block no.	00031
Length	00001
Type	Number

- Enter the number of rings allowed (1 through 10) before answering.
- + This parameter will be ignored if **Jump other answering devices** is enabled.

Example

```
031  00001   00001
             00004
```
The incoming call will be answered after 4 *Rings*.

Disable Line Tone Check / Dialling mode

Block no.	00032
Length	00002
Type	Logic

Enter the 2 logic values as follows.

Value 1: Disable / Enable the **Tone Check**:

● Enter **1**----to disable the option

● Enter **0**----to enable the option

Value 2: Select dialling mode (DTMF or Pulse).

● Enter **0** for DTMF

● Enter **1** for Pulse

Example

032 00002	00001
	00001

032 00002	00002
	00000

The line tone check is **disabled** and the selected dialling mode is **DTMF**.

Answerphone message

Block no.	00033
Length	00001
Type	Number
Validity	0..14

Assign one of the 14 messages to the answering device.

● Enter the Voice message number (1 through 14).

0 means no message.

Example

033 00001	00001
	00014

Voice message no. 14 is assigned to the answering device.

Digital Communicator Attempts

Block no.	00034
Length	00001
Type	Number
Validity	0..255

● Enter the number of **Attempts** the Panel must make for unsuccessful Digital Communicator calls----before clearing the call from the Call queue.

Example

034 00001	00001
	00008

The Digital Communicator will make 8 *Attempts*.

Number to dial, Customer code and Protocol

Block no.	00035
Length	00024
Type	Number

Enter 6 values----for each of the 4 Digital Communicator telephone numbers, as follows.

● **Value 1:** enter the **identifier no.** of the Central Station telephone number ----from the 32 telephone numbers in the phonebook.

● **Value 2:** enter the first digit of the Customer code.
Value 3: enter the second digit of the Customer code.
Value 4: enter the third digit of the Customer code.
Value 5: enter the fourth digit of the Customer code.

+ Enter 10 for 0.

Enter hexadecimal characters as follows:
11 = **B**
12 = **C**
13 = **D**
14 = **E**
15 = **F**

● **Value 6:** enter the Communication **Protocol**----as per the following table.

PROTOCOL	VALUE
ADEMCO/SILENT KNIGHT - Slow 10 baud	**00000**
ADEMCO/SILENT KNIGHT - Fast 20 baud	**00001**
FRANKLIN/SECOA/DCI/VERTEX - Fast 20 baud	**00002**
RADIONICS - 40 baud	**00003**
SCANTRONIC - 10 baud	**00004**
Customized	**00005**
Contact ID	**00006**
ADEMCO/SILENT KNIGHT - Slow 10 baud + Voice	**00128**
ADEMCO/SILENT KNIGHT - Fast 20 baud + Voice	**00129**
FRANKLIN/SECOA/DCI/VERTEX - Fast 20 baud + Voice	**00130**
RADIONICS - 40 baud + Voice	**00131**
SCANTRONIC - 10 baud + Voice	**00132**
Contact ID + Voice	**00133**
Customized + Voice	**00134**

Example Program the *Number to dial*, *Customer code* and *Protocol* of the first Central Station the Digital communicator will transmit to.

`Ø35 ØØØ24  ØØØØ1` `         ØØØ15`	***Number to dial:*** Telephone number no. 16
`Ø35 ØØØ24  ØØØØ2` `         ØØØØ2`	***Customer code:*** 205B
`Ø35 ØØØ24  ØØØØ3` `         ØØØ1Ø`	
`Ø35 ØØØ24  ØØØØ4` `         ØØØØ5`	
`Ø35 ØØØ24  ØØØØ5` `         ØØØ12`	
`Ø35 ØØØ24  ØØØØ6` `         ØØØØ4`	***Protocol:*** Scantronic 10 baud

Definition of Digital Communicator Actions 1 though 32

Block no.	`00036`
Length	`00192`
Type	`Number`

Enter 3 values----for sub-actions **A** and **B**----for each of the 32 Digital Communicator Actions, as follows.

● **Value 1:** enter the first digit of the Event code.
Value 2: enter the second digit of the Event code.

+ Enter 10 for **0** for all protocols **except Contact ID**.

Enter hexadecimal characters as follows:
11 = **B**
12 = **C**
13 = **D**
14 = **E**
15 = **F**

Value 3: enter the telephone numbers to be called.
Enter the total significance of the telephone numbers----calculate as follows:

Telephone number no. 1 = significance **1**
Telephone number no. 2 = significance **2**
Telephone number no. 3 = significance **4**
Telephone number no. 4 = significance **8**

Therefore, enter 15 (1 + 2 + 4 + 8 = 15 total) to call all 4 telephone numbers.

To call **all** telephone numbers----even successful calls----add **128** to the sum of the **significance** of each telephone number (refer to **Sub-action B** in the example).

Example

			Sub-action A
Ø36 ØØ192	ØØØØ1 ØØØØ2		The values shown here are for **Event code** 20
Ø36 ØØ192	ØØØØ2 ØØØ1Ø		
Ø36 ØØ192	ØØØØ3 ØØØØ3		Telephone numbers no. 1 and no. 2 will be called. Recall on success (*All* option): **NO**
			Sub-action B
Ø36 ØØ192	ØØØØ4 ØØØØ2		The values correspond to **Event code** 21
Ø36 ØØ192	ØØØØ5 ØØØØ1		
Ø36 ØØ192	ØØØØ6 ØØ131		Telephone numbers no. 1 and no. 2 will be called. Recall on success (*All* option): **YES** (1 + 2 + 128 = 131)

Definition of Digital Communicator Actions 33 through 64

Block no.	00037
Length	00192
Type	Number

As per **Block** 00036 for actions no. 33 through no. 64.

Definition of Digital Communicator Actions 65 through 96

Block no.	00038
Length	00192
Type	Number

As per **Block** 00036 for actions no. 65 through no. 96.

Definition of Digital Communicator Actions 97 through 128

Block no.	00039
Length	00192
Type	Number

As per **Block** 00036 for actions no. 97 through no. 128.

Definition of Digital Communicator Actions 129 through 160

Block no.	00040
Length	00192
Type	Number

As per **Block** 00036 for actions no. 129 through no. 160.

Definition of Digital Communicator Actions 161 through 192

Block no.	00041
Length	00192
Type	Number

As per **Block** 00036 for actions no. 161 through no.192.

Definition of Digital Communicator Actions 193 through 224

Block no.	00042
Length	00192
Type	Number

As per **Block** 00036 for actions no. 193 through no. 224.

Definition of Digital Communicator Actions 225 through 250

Block no.	00043
Length	00156
Type	Number

As per **Block** 00036 for actions no. 225 through no. 250. The **Block** length is 156 and not 192, as only 26 actions can be programmed.

Dialler Call Attempts

Block no.	00044
Length	00001
Type	Number
Validity	0..255

● Enter the number of **Attempts** the Dialler must make----before clearing an unsuccessful call from the call queue.

Example

```
Ø44  ØØØØ1   ØØØØ1
             ØØØØ8
```
The Digital Communicator will make 8 **Attempts**.

Recall on success

Block no.	00045
Length	00001
Type	Logic

● Enter **1**----to call **all** telephone numbers----successful calls included----for the programmed number of **Attempts**.

Example

```
Ø45  ØØØØ1   ØØØØ1
             ØØØØØ
```
Recall on success is disabled.

Repetition time and Dialler Telephone numbers

Block no.	00046
Length	00048
Type	Number

Enter 3 Values for each Dialler number as follows.

Value 1: enter the **second** integer of the **Repetition time** calculation.
Value 2: enter the **first** integer of the **Repetition time** calculation.
Value 3: enter the telephone **identifier no.** (see footnote).

+ The **Repetition time** (up to 90 seconds) determines the length of the Dialler call (maximum 90 seconds). The assigned message will be repeated continuously until the call ends.

How to calculate the Repetition time value:

----**multiply** the chosen **Repetition time** by **0.13**.

The result will be an integer (whole number) and a decimal fraction.

Enter the resulting integer for **Value 2**.

----**multiply** the resulting decimal fraction by **256**.

Enter the resulting integer for **Value 1**.

Example Chosen **Repetition time** = 90 seconds:

----multiply **90** by **0.13**:($90 * 0.13 = $ **11.7**) then

----multiply the decimal fraction by **256** (**0.7** x **256** = 179.2 rectified to **179**).

Value 1 = **179**

Value 2 = **11**

Value 3 = **Identifier no. 0** (corresponds to **identifier no. 1** in the Phonebook).

```
Ø46  ØØØ48   ØØØØ1
             ØØ179
```
The message will be repeated continuously for 90 seconds.

```
Ø46  ØØØ48   ØØØØ2
             ØØØ11
```

```
Ø46  ØØØ48   ØØØØ3
             ØØØØØ
```
The Dialler will call the first number in the Panel Phonebook **Identifier no.1** (see footnote).

+ Up to 16 of the 32 telephone numbers in the Panel phonebook can be assigned to the dialler. However, the telephone number **Identifier numbers** in this parameter **start from 0 and not from 1**----as in the phonebook. Therefore, each telephone number identifier must step back 1 (e.g. Identifier 32 in the Phonebook corresponds to Identifier 31 for the Dialler, etc.).

Dialler Actions

Block no.	00047
Length	00096
Type	Flags8

Enter 3 Values for each of the 32 **Dialler actions** as follows.

Each Dialler action will send one of the 14 Voice Messages to up to 16 telephone numbers (from the 32 telephone numbers in the Phonebook). Dialler actions will be repeated as per the programmed number of **Attempts**.

● **Value 1:** Dialler numbers to be called (**1** through **8**).

Enter **+** (press [ON/PRG]) in the flag spaces the numbers to be called.

● **Value 2:** Dialler numbers to be called (**9** through **16**).

Enter **+** (press [ON/PRG]) in the flag spaces of the numbers to be called.
The first flag corresponds to Dialler number 9, the second to Dialler number 10, etc.

● **Value 3:** assign the message (see the table below):

MESSAGE	1	2	3	4	5	6	7	8	MESSAGE	1	2	3	4	5	6	7	8
no. 1	+	–	–	–	–	–	–	–	no. 8	–	–	–	+	–	–	–	–
no. 2	–	+	–	–	–	–	–	–	no. 9	+	–	–	+	–	–	–	–
no. 3	+	+	–	–	–	–	–	–	no. 10	–	+	–	+	–	–	–	–
no. 4	–	–	+	–	–	–	–	–	no. 11	+	+	–	+	–	–	–	–
no. 5	+	–	+	–	–	–	–	–	no. 12	–	–	+	+	–	–	–	–
no. 6	–	+	+	–	–	–	–	–	no. 13	+	–	+	+	–	–	–	–
no. 7	+	+	+	–	–	–	–	–	no. 14	–	+	+	+	–	–	–	–

Example

047 00096 00004
++++----

047 00096 00005
----

047 00096 00006
+-------

Voice message no. 1 is assigned to Dialler numbers no. 1, 2, 3 and 4.

Callback and Test call

Block no.	00048
Length	00002
Type	Logic

Enter 2 Values as follows.

● **Value 1:** Enable / Disable **Callback**:
Enter **1**----to enable the option
Enter **0**----to disable the option

● **Value 2:** Enable / Disable **Test call**:
Enter **1**----to enable the option
Enter **0**----to disable the option

➢ If **Callback** is **enabled** the Panel will call the station immediately after receiving a Teleservice call.

➢ If the **Test Call** is **enabled** the Panel will send a Test Call when the **Test** event occurs.

Example

048 00002 00001
00001

Callback enabled

048 00002 00002
00000

Test call disabled

Teleservice Call Attempts

Block no.	00049
Length	00001
Type	Number
Validity	0..255

● Enter the number of **Attempts** the Panel must make for an unsuccessful Teleservice call----before clearing the call from the Call queue.

Example

| 049 00001 | 00001 |
| | 00008 |

The Panel will make 8 *Attempts*.

Enable Teleservice numbers

Block no.	00050
Length	00001
Type	Flags8

Enable / Disable Teleservice numbers.

- Enter **+** (press [ON PRG]) in the flag space to enable the Teleservice number.

Example

| 050 00001 | 00001 |
| ++------ | |

Teleservice numbers no. 1 and no. 2 are *Enabled*.

Teleservice numbers

Block no.	00051
Length	00004
Type	Number
Validity	0..31

Assign 4 of the 32 Telephone numbers from the Panel Phonebook to Teleservice.

Example

051 00004	00001
	00028
051 00004	00002
	00029
051 00004	00003
	00030
051 00004	00004
	00031

Telephone numbers **29**, **30**, **31** and **32** are assigned to Teleservice.

Teleservice Customer code

Block no.	00052
Length	00004
Type	Number
Validity	0..9

- Enter the 4 figure **Customer code** for Teleservice.

Example

052 00004	00001
	00009
052 00004	00002
	00001
052 00004	00003
	00000
052 00004	00004
	00005

9105 is the *Teleservice Customer code*.

Output actions for Zone alarms

Block no.	00053
Length	00080
Type	Number
Validity	0..36

- Enter the **identifier no.** of the Output that will be activated by the **Alarm on zone** event.

  Enter **0** for **no Output**.

Note This Panel manages a maximum of 40 zones, therefore, parameters no. 41 through no. 80 are irrelevant.

Example

Ø53 ØØØ8Ø   ØØØØ8
ØØØØ4

Alarm on zone 08 will activate Output no. 4.

Output actions for Tamper on zone

Block no.	00054
Length	00080
Type	Number
Validity	0..36

● Enter the **identifier no.** of the Output that will be activated by the **Tamper on zone** event.

Enter **0** for no **Output**.

Note This Panel manages a maximum of 40 zones, therefore, parameters no. 41 through no. 80 are irrelevant.

Example

Ø54 ØØØ8Ø   ØØØØ6
ØØØØ3

Tamper on zone 06 will activate Output no. 3.

General events-Part 1

Block no.	00055
Length	00112
Type	Number
Validity	0..36

● Enter the **identifier no.** of the Output that will be activated by the Event (refer to **General events-Part 1**).

Enter **0** for no **Output**.

Example

Ø55 ØØ112   ØØØ63
ØØØØ8

General event **63** (*Mains failure*) will activate Output no. 8.

General events-Part 2

Block no.	00056
Length	00107
Type	Number
Validity	0..36

Enter the **identifier no.** of the Output that will be activated by the Event (refer to **General events-Part 2**).

Enter **0** for no **Output**.

Example

Ø55 ØØ1Ø7   ØØØ89
ØØØØ7

General event **89** (*Telephone line trouble*) will activate Output no. 7.

Spot events

Block no.	00057
Length	00062
Type	Number
Validity	0..36

● Enter the **identifier no.** of the Output that will be activated by the Event (refer to **Spot events**).

Enter **0** for no **Output**.

Example

Ø57 ØØØ62   ØØØ13
ØØØØ6

Spot event 13 (*Super key 3*) will activate Output no. 6.

Digital Communicator and Dialler Actions for Alarm on zone

Block no.	00058
Length	00160
Type	Number

Enter 2 values for each Zone as follows.

● **Value 1:** enter the **Identifier no.** (1 through 128) of the Digital Communicator action for the **Alarm on zone** event----select from 128 available actions.

Enter **0** for **no Action**.

● **Value 2:** enter the **Identifier no.** (1 through 32) of the Dialler action for the **Alarm on zone** event----select from 32 available actions.

Enter **0** for **no Action**.

Note This Panel manages a maximum of 40 zones, therefore, parameters no. 82 through no. 160 are irrelevant.

Example

Ø58 ØØ16Ø	ØØØ15
	ØØØØ8

Ø58 ØØ16Ø	ØØØ16
	ØØØØØ

Alarm on zone 08 will activate Digital Communicator action no. 8 and no Dialler action.

Digital Communicator and Dialler Actions for Tamper on zone

Block no.	00059
Length	00160
Type	Number

Enter 2 values for each Zone as follows.

● **Value 1:** enter the **Identifier no.** (1 through 128) of the Digital Communicator action for the **Tamper on zone** event----select from 128 available actions.

Enter **0** for **no Action**.

● **Value 2:** enter the **Identifier no.** (1 through 32) of the Dialler action for the **Tamper on zone** event----select from 32 available actions.

Enter **0** for **no Action**.

Note This Panel manages a maximum of 40 zones, therefore, parameters no. 82 through no. 160 are irrelevant.

Example

Ø59 ØØ16Ø	ØØØØ3
	ØØØØØ

Ø59 ØØ16Ø	ØØØØ4
	ØØØØ2

Tamper on zone 02 will activate Dialler action no. 2 and no action on the Digital Communicator.

Digital Communicator and Dialler Actions for General events (Part 1)

Block no.	00060
Length	00224
Type	Number

Enter 2 values for each of the 112 **General events-Part 1** as follows.

● **Value 1:** enter the **Identifier no.** (1 through 128) of the Digital Communicator action for the **General** event----select from 128 available actions.

Enter **0** for **no Action**.

● **Value 2:** enter the **Identifier no.** (1 through 32) of the Dialler action for the **General** event----select from 32 available actions.

Enter **0** for **no Action**.

Example

Ø6Ø ØØ224	ØØ1Ø1
	ØØØØ8

Ø6Ø ØØ224	ØØ1Ø2
	ØØØØ1

General event no. 51 (*Burglar alarm on panel*) will activate Digital Communicator action no. 8 and Dialler action no. 1.

Digital Communicator and Dialler Actions for General events-Part 2

Block no.	00061
Length	00214
Type	Number

Enter 2 values for each of the 107 **General events-Part 2** as follows.

● **Value 1:** enter the **Identifier no.** (1 through 128) of the Digital Communicator action for the **Alarm on zone** event----select from 128 available actions.

Enter **0** for **no Action**.

● **Value 1:** enter the **Identifier no.** (1 through 32) of the Dialler action for the **Alarm on zone** event----select from 32 available actions .

Enter **0** for **no Action**.

Example

061 00214	00001
	00000

061 00214	00002
	00000

General event no. 1 (***Bypass zone 01***) will not activate Digital Communicator or Dialler actions.

Digital Communicator and Dialler Actions for Spot events

Block no.	00062
Length	00124
Type	Number

Enter 2 values for each of the 62 **Spot events** as follows:

● **Value 1:** enter the **Identifier no.** (1 through 128) of the Digital Communicator action for the **Spot event**---select from 128 available actions.

Enter **0** for **no Action**.

● **Value 2:** enter the **Identifier no.** (1 through 32) of the Dialler action for the **Spot event**----select from 32 available actions.

Enter **0** for **no Action**.

Example

062 00124	00001
	00020

062 00124	00002
	00000

Spot event no. 1 (***Test***) will activate Digital Communicator action no. 20 and no Dialler action.

Digital Communicator and Dialler Actions for Reset Alarm on zone

Block no.	00063
Length	00160
Type	Number

As per **Block** 00058 for reset of **Alarm on zone** events.

Note This Panel manages a maximum of 40 zones, therefore, parameters no. 82 through no. 160 are irrelevant.

Digital Communicator and Dialler Actions for Reset Tamper on zone

Block no.	00064
Length	00160
Type	Number

As per **Block** 00059 for reset of **Tamper on zone** events.

Note This Panel manages a maximum of 40 zones, therefore, parameters no. 82 through no. 160 are irrelevant.

Digital Communicator and Dialler Actions for Reset General events -Part 1

Block no.	00065
Length	00224
Type	Number

As per **Block** 00060 for reset of **General events-Part 1**.

Digital Communicator and Dialler Actions for Reset General events -Part 2

Block no.	**00066**
Length	**00214**
Type	**Number**

As per **Block** 00061 for reset of **General events-Part 2**.

Initialize Test event

Block no.	**00067**
Length	**00001**
Type	**Logic**

● Enter **1** to Initialize the Test event delay when the parameter programming phase ends.

Example

067	00001	00001 00001

Test event delay Initialized.

Test event parameters

Block no.	**00068**
Length	**00005**
Type	**Number**

Enter 5 values for the test event.

● **Enable / Disable:**

Enter **1** to enable the **Test** event

Enter **0** to disable the **Test** event

● **Hour:** enter the hour value (0 through 23).

● **Minute:** enter the minute value (0 through 59).

● **First Test delay:** enter the number of days before the first **Test** event will be generated (0 through 99).

● **Repeat Test event:** enter the number of days between **Test** events (0 through 99).

Example

068	00005	00001 00001	Test event *Enabled*
068	00005	00002 00023	The *Test* event will be generated at *23:30*
068	00005	00003 00030	
068	00005	00004 00003	3 days after the *Initialization*
068	00005	00005 00007	and will be generated every 7 days

Date and Time

Block no.	**00069**
Length	**00007**
Type	**Number**

Enter 6 values as follows.

● **Hour:** enter 0 through 23.

● **Minutes:** enter 0 through 59.

● **Day:** enter 1 through 31.

● **Month:** enter 1 through 12.

● **Century:** enter 0 through 99.

● **Year:** enter 0 through 99.

● **Day of the week:** enter 0 through 6 (0 = Monday, 6 = Sunday).

Example Enter the date as follows.

`069 00007`	`00001` `00017`	*Hour:* 17
`069 00007`	`00002` `00000`	*Minutes:* 00
`069 00007`	`00003` `00009`	*Day:* 9
`069 00007`	`00004` `00007`	*Month:* July
`069 00007`	`00005` `00020`	*Year:* 2001
`069 00007`	`00006` `00001`	
`069 00007`	`00007` `00003`	*Day of the week:* Thursday

Date format

Block no.	**00070**
Length	**00001**
Type	**Logic**

Enter the data format value as follows:

0 = Day/Month/Year

1 = Year/Month/Day

Example

`070 00001`	`00001` `00000`

Programmed Date format = Day/Month/Year

Mains Filter time

Block no.	**00071**
Length	**00001**
Type	**Number**
Validity	**0..65000**

Enter the Filter time value for Mains failure.

+ The Panel will ignore Mains Failure for the programmed Filter time but will generate a Mains failure event when the Filter time ends.

How to calculate the Filter time value:

----multiply the Filter time (in minutes) **by 1000**

Example

`071 00001`	`00001` `30000`

The *Mains failure* event will be generated 30 minutes after Mains failure detection.

Keypad Lockout on Code Error

Block no.	**00072**
Length	**00003**
Type	**Number**

Enter 3 Values as follows.

● **Value 1:** enter the number of wrong Codes allowed (as per requirements) before Keypad lockout.

● **Value 2** and **3:** enter the **Lockout time** value.

How to calculate the Lockout time value:

----*multiply* the chosen **Lockout time** (from 9 through 1800 seconds) by **0.13**.

The result will be an integer (whole number) and a decimal fraction.

Enter the resulting integer for **Value 3**.

—*multiply* the resulting decimal fraction by **256.**

Enter the resulting integer for **Value 2**, as per the example.

---multiply **30** by **0.13**:(30 * 0.13 = 3.9) then

---multiply the decimal fraction by **256** (0.9 * 256 = 230.4 rectified to **230**).

● **Value 2**---enter **230**

● **Value 3**---enter **3**

Ø72 ØØØØ3 ØØØØ1 ØØØØ5	5 wrong Codes will be allowed before the Keypad locks for 30 seconds.
Ø72 ØØØØ3 ØØØØ2 ØØ23Ø	
Ø72 ØØØØ3 ØØØØ3 ØØØØ3	

General options

Block no.	00073
Length	00008
Type	Logic

● Enter **1** to **enable** the following options.

● Enter **0** to **disable** the following options.

   1 - **Maintain Zone Test Attribute**

   2 - **Disable Welcome message**

   3 - **LEDs OFF on Key reader with no digital key**

   4 - **Bypass tamper on zone**

   5 - **Disable arming on battery trouble**

   6 - **Disable tamper memory reset with User code**

   7 - **Disable alarm memory reset with Installer code**

   8 - **Enable panel-alarm stop with valid Digital key**

Example The General options can be programmed as follows:

Ø73 ØØØØ8 ØØØØ1 ØØØØ1	*Zone in test* will be logged when the Partition is disarmed
Ø73 ØØØØ8 ØØØØ2 ØØØØØ	Welcome message enabled
Ø73 ØØØØ8 ØØØØ3 ØØØØ1	Key reader LEDs will be OFF when no digital key is present
Ø73 ØØØØ8 ØØØØ4 ØØØØ1	Tamper alarm disabled on bypassed Zones
Ø73 ØØØØ8 ØØØØ5 ØØØØØ	Arming allowed also in the event of battery trouble
Ø73 ØØØØ8 ØØØØ6 ØØØØØ	Tamper alarm reset enabled for User code PIN
Ø73 ØØØØ8 ØØØØ7 ØØØØØ	Alarm reset enabled for Installer code PIN
Ø73 ØØØØ8 ØØØØ8 ØØØØØ	Stop Panel Alarm by valid Digital key enabled

Lock Installer code

Block no.	00074
Length	00001
Type	Logic

Enter **1** to lock the Installer code PIN. A locked Installer Code PIN cannot be reset to factory default.

Example

Ø74 ØØØØ1 ØØØØ1 ØØØØ1	Installer code *locked*.

General events-Part 1

Number	Event	Number	Event
1..8	Fire alarm on Partition	61	Warning fuse BPI
9..16	24h alarm on Partition	62	NOT AVAILABLE!
17..24	Burglar alarm on Partition	63	Warning mains failure
25..32	Generic alarm on Partition	64	Warning low battery
33..40	Tamper alarm on Partition	65	Warning power trouble
41..48	Generic+Tamper alarm on Partition	66	Warning mains failure on Power station
49	Fire alarm on Panel	67	Warning low battery on Power station
50	24h alarm on Panel	68	Warning power trouble on Power station
51	Burglar alarm on Panel	69	Warning generic
52	Generic alarm Panel	70	Trouble on BPI
53	Tamper alarm on Panel	71..78	Partition Armed
54	Generic+Tamper alarm on Panel	79..86	Exit time on Partition
55	Main unit open	87..94	Entry time on Partition
56	Balanced tamper	95..102	Valid key on Partition
57	Tamper on BPI devices	103	Valid key on panel
58	False key on Key reader	104..111	Alarm stop on Partition
59	NOT AVAILABLE!	112	Alarm stop on panel
60	Warning fuse +B		

General events-Part 2

Number	Event	Number	Event
1..40	Bypass zone	89	Telephone line trouble
81..88	Not ready to arm Partition		

Spot events

Number	Event	Number	Event
1	Test	61	Teleservice request from OmniaMOD
2..9	Reset on Partition	62	Teleservice ON
10	Reset on panel	63	Teleservice action failed
11..20	Super key 1,2,3,4,5,6,7,8,9,0	64	DTMF Communicator action failed
21..28	Chime on Partition	65	Dialler action failed
29..60	Recognized user code	66	Digital Communicator action failed

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